To: OBrien, Wendy[OBrien.Wendy@epa.gov]

From: Christner, Jan

Sent: Wed 8/12/2015 5:57:13 PM **Subject:** RE: Background Data

It's getting close but I found a few data points that were off and had to redo some of the things. Plus I got called in as someone who knows the site a few times. Give me 10 minutes and I'll give you a timeframe. The 2 hours is doable and I just won't answer the phone.

From: OBrien, Wendy [mailto:OBrien.Wendy@epa.gov]

Sent: Wednesday, August 12, 2015 11:47 AM

To: Christner, Jan

Subject: RE: Background Data

Hi Jan,

Can you give me an update on status of the background tables? We are hopgin to include background info in our comparison for communication in a couple of hours.

Thanks,

WO

Wendy O'Brien, DVM, PhD, DABT

Toxicologist, Ecosystems Protection and Remediation

USEPA Region 8

1595 Wynkoop Street

Denver, CO 80202

Phone: 303.312.6712

FAX: 303.312.7151

From: Christner, Jan [mailto:Jan.Christner@WestonSolutions.com]

Sent: Wednesday, August 12, 2015 8:25 AM

To: OBrien, Wendy

Subject: RE: Background Data

Thanks. Working on the summary table.

From: OBrien, Wendy [mailto:OBrien.Wendy@epa.gov]

Sent: Wednesday, August 12, 2015 8:24 AM

To: Christner, Jan

Subject: RE: Background Data

Thanks Jan. please see reponses in green text below.

Wendy O'Brien, DVM, PhD, DABT

Toxicologist, Ecosystems Protection and Remediation

USEPA Region 8

1595 Wynkoop Street

Denver, CO 80202

Phone: 303.312.6712

FAX: 303.312.7151

From: Christner, Jan [mailto:Jan.Christner@WestonSolutions.com]

Sent: Wednesday, August 12, 2015 7:42 AM

To: OBrien, Wendy

Subject: RE: Background Data

Hi, Wendy.

A few more questions:

- With the UTLs, the program doesn't state which is the best fit (normal, lognormal, or gamma), so on the table I sent yesterday I included the UTL wherever the data fit the distribution. Do you just want one for the table, and if so, which one? Please include all values still deciding which is most appropriate to use.
- Similarly, the UTL, there are 2 UTLs for some of the distributions. For example, there are two approximations for the Gamma UTL, Wilson-Hilferty and Hawkins-Wixley). I propose averaging those two but I'm not an expert on these things so you might want to check with someone about the correct approach. Let's not average at this point, just provide straight results and we will have to discuss further.

Until I hear differently I will include all of the values on the table because it's easier to delete than to go back and hunt up the information. Yes please!

And regarding the statistics. I had just done A72 yesterday because you were most interested in the Animas River downstream of the spill. Would you like me to add in the stats for Cement Creek (CC48)? I assume you don't need the statistics for the Animas River upstream of the spill (A68) but can add those too if you like. A72 is sufficient.

Sorry for all the questions, but I want to be sure this information is presented in the most effective way possible.

Jan

From: OBrien, Wendy [mailto:OBrien.Wendy@epa.gov]

Sent: Wednesday, August 12, 2015 6:22 AM

To: Christner, Jan; Adamczyk, Megan; Keteles, Kristen

Subject: RE: Background Data

For the summary table, can you list min, max, mean, and any UTL values that were calculated, recognizing some datasets were too small to calculate a UTL, for which you can indicate NA with a footnote indicating dataset size limitation.

If possible, can you construct summary table to include, and stratify by, results you gave us a couple of days ago for upper portions of the sampling effort versus the data you analyzed yesterday for the areas around Durango? Point being we will be looking at different background levels for those two different areas.

I'm in the office – feel free to call with any questions,

Then we will decide which background values are most appropriate to use for the screen, and relay that info to Megan.

Thank you!

Wendy O'Brien, DVM, PhD, DABT

Toxicologist, Ecosystems Protection and Remediation

USEPA Region 8

1595 Wynkoop Street

Denver, CO 80202

Phone: 303.312.6712

FAX: 303.312.7151

From: Christner, Jan [mailto:Jan.Christner@WestonSolutions.com]

Sent: Tuesday, August 11, 2015 8:24 PM **To:** OBrien, Wendy; Adamczyk, Megan

Subject: Background Data

See the attached Excel files. There is one file for dissolved metals, one for total metals, one for sediments. Within each workbook, there is a tab for each location plus a tab with all of the data. Please review before I send to others.

Wendy, what stats do you want in the background summary table?

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.